

Notice of Allowability

Application No.

10/008,355

Examiner

Sheridan L. Swope

Applicant(s)

TRAVIS ET AL

Art Unit

1652

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to April 14, 2004.
2. ☒ The allowed claim(s) is/are 57,74 and 76.
3. ☒ The drawings filed on 08 November 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

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DETAILED ACTION

Applicant's response, on April 14, 2004 to the Final Rejection of this case mailed, January 14, 2004, is acknowledged. It is acknowledged that applicants have cancelled Claims 1-56, 58-73, 75, and 77. Claims 57, 74, and 76 are pending. It is acknowledged that applicants have amended Claims 57 and 74. Claims 57, 74, and 76 are hereby reconsidered.

Allowable Subject Matter

Claims 57, 74, and 76 are allowed.

The following is an examiner's statement of reasons for allowance:

All elected Claims, 57, 74, and 76, are limited to isolated nucleic acid molecules having the sequence of SEQ ID NO: 1 or variants thereof, wherein each nucleic acid molecules encodes a protein having amidolytic dipeptidylpeptidase activity and, wherein the substrate specificity is for said peptidase is for cleaving between the second and third amino acids from an unblocked amino-terminal of a polypeptide having an aliphatic or an aromatic residue on the α -carbon atom of the second residue. The utility of said polynucleotides, as encoding proteins having amidolytic dipeptidylpeptidase activity, is credible based on the following. Applicants purified a protein with said activity from *P. gingivalis*, analyzed the purified protein by peptide sequencing, and identified the *P. gingivalis* genomic contig gln/TIGR/*P. ginigivalis*_1208 from the Institute for Genomic Research data base as comprising all six peptide fragments of their purified protein (Examples 1 and 6).

It is noted that Applicants' definition of aliphatic and aromatic amino acids includes the disclosure on page 6:

—As used herein, "aliphatic residue" means an organic radical having carbon atoms linked in open chains.

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As used herein, "aromatic residue" means an organic radical that includes an aromatic ring (e.g., an aromatic group, an alkaryl group, or an aralkyl group).—

and the disclosure on page 29:

—Again, only those polypeptides having an amino acid with an aliphatic or an aromatic residue as a substituent on the α -carbon atom of the second amino acid from the N-terminal end of the polypeptide were cleaved (Table 3), with glycine, proline, or charged amino acids not being acceptable as the second amino acid from the N-terminal end of the polypeptide.—

Applicants' definition of aliphatic and aromatic amino acids further includes disclosure of an exemplary list in their response of October 27, 2003:

—Charged amino acids, e.g. arginine, lysine, histidine, aspartic acid, and glutamic acid, as clearly recited in the specification (e.g. page 14, lines 4-7) are excluded by the "proviso" language. Amino acids having no substituents on the α -carbon atom (e.g., glycine) are also excluded by the above definition. Proline, a cyclic residue that has neither an aromatic residue or an aliphatic (i.e. an open chain) residue as a substituent on the α -carbon atom, is also excluded by the above definition. Thus, Applicants respectfully submit that it would be clear to one of skill in the art, based on reading the specification as a whole, that common, non-charged amino acids having an aliphatic or an aromatic residue as a substituent on the α -carbon atom include, for example, alanine, asparagine, cysteine, 3,5-dibromotyrosine, 3,5-diiodotyrosine, glutamine, isoleucine, leucine, methionine, phenylalanine, serine, threonine, thyroxine, tryptophan, tyrosine, and valine.—

Based on said disclosures, the metes and bounds of the aliphatic and aromatic amino acids that can be the second amino acid are adequately described.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sheridan L. Swope whose telephone number is 571-272-0943.

The examiner can normally be reached on M-F; 9:30-7 EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ponnathapura Achutamurthy can be reached on 571-272-0928. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3014 for regular communications and 703-872-9307 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0196.

Sheridan Lee Swope, Ph.D.

Rebecca Hunt
REBECCA E. HUNT
PRIMARY EXAMINER
GROUP 1600
1600